



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/240,563	01/29/1999	DAVID J. BOOTHBY	05110/003004	7489
26161 7590 02/05/2008 FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER ABEL JALIL, NEVEEN	
			ART UNIT 2165	PAPER NUMBER
			MAIL DATE 02/05/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/240,563

Applicant(s)

BOOTHBY, DAVID J.

Examiner

Neveen Abel-Jalil

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/2/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Remarks

1. In response to Applicant's Amendment filed on November 2, 2007, claims 22-31 are now pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 22-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Everson et al. (U.S. Patent No. 5,261,094) in view of Shaheen et al. (U.S. Patent No. 5,434,994).

As to claim 22, Everson et al. discloses a data processing method comprising:
synchronizing data records of a plurality of disparate databases (See Everson et al. column 1, lines 38-40), wherein synchronizing comprises:
providing a status file comprising data records reflecting contents of data records existing in at least one of the disparate databases at a time of a prior synchronization (See Everson et al. column 1, lines 60-67, and see Everson et al. column 2, lines 1-2);
updating the first and second databases based on an outcome of the comparing step
synchronization (See Everson et al. column 3, lines 50-66); and

updating the data records of the status file to reflect the contents of the data records in the first and the second of the plurality of disparate databases after the disparate databases have been updated (See Everson et al. column 3, lines 50-66).

Everson et al. discloses the claimed invention but does not explicitly teach comparing data records from at least one of a first and a second of the plurality of disparate databases to corresponding data records of the status file to determine whether data records of the plurality of disparate databases have changed or been deleted since the prior synchronization or whether there are new data records since the prior synchronization; nor does it explicitly teach wherein at least the data records of the first and the second databases are without unique identification codes. Although, Everson et al. does teach querying for updates since last synchronization by tracking date/time of updates (See column 1, lines 56-67, and column 2, lines 1-2, wherein “status file” reads on “control table”).

Shaheen et al. teaches comparing data records from at least one of a first and a second of the plurality of disparate databases to corresponding data records of the status file to determine whether data records of the plurality of disparate databases have changed or been deleted since the prior synchronization or whether there are new data records since the prior synchronization (See Shaheen et al. column 7, lines 41-55); and

wherein at least the data records of the first and the second databases are without unique identification codes (See Shaheen et al. column 7, lines 26-35, wherein the unique code is for each record that is being replicated NTO each record in the database).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Everson et al. by the teachings of Shaheen et al.

to include comparing data records from at least one of a first and a second of the plurality of disparate databases to corresponding data records of the status file to determine whether data records of the plurality of disparate databases have changed or been deleted since the prior synchronization or whether there are new data records since the prior synchronization because it allows for coherency and less processing in performing needed synchronization (See Shaheen et al. column 1, lines 32-36, and see Shaheen et al. column 2, lines 55-56). It also would have been obvious to include wherein at least the data records of the first and the second databases are without unique identification codes because it provides for different way of tracking updates and management of replicas (See Shaheen et al. column 1, lines 63-66).

As to claim 23, Everson et al. discloses a data processing method comprising:

synchronizing data records of a plurality of disparate databases, wherein synchronizing comprises (See corresponding rejection above in claim 22):

providing a status file containing data records reflecting the contents of data records existing in at least one of the disparate databases at the time of a prior synchronization (See corresponding rejection above in claim 22);

updating the first and second databases based on an outcome of the comparing step (See corresponding rejection above in claim 22); and

updating the data records of the status file to reflect the contents of the data records in the first and the second of the plurality of disparate databases after the disparate databases been updated (See corresponding rejection above in claim 22);

wherein at least the data records of the first database are identified by unique identification codes (See Everson et al. column 3, lines 7-11).

Everson et al. discloses the claimed invention but does not explicitly teach comparing data records from at least one of a first and a second of the plurality of disparate databases to corresponding data records of the status file to determine whether data records of the plurality of disparate databases have changed or been deleted since the prior synchronization or whether there are new data records since the prior synchronization. Although, Everson et al. does teach querying for updates since last synchronization by tracking date/time of updates (See column 1, lines 56-67, and column 2, lines 1-2, wherein “status file” reads on “control table”).

Shaheen et al. teaches comparing data records from at least one of a first and a second of the plurality of disparate databases to corresponding data records of the status file to determine whether data records of the plurality of disparate databases have changed or been deleted since the prior synchronization or whether there are new data records since the prior synchronization (See Shaheen et al. column 7, lines 41-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Everson et al. by the teachings of Shaheen et al. to include comparing data records from at least one of a first and a second of the plurality of disparate databases to corresponding data records of the status file to determine whether data records of the plurality of disparate databases have changed or been deleted since the prior synchronization or whether there are new data records since the prior synchronization because it allows for coherency and less processing in performing needed synchronization (See Shaheen et al. column 1, lines 32-36, and see Shaheen et al. column 2, lines 55-56).

As to claim 24, Everson et al. as modified discloses the method of claim 22 or 23 wherein the correspondence between data records of the first and second databases is achieved by comparing key fields of the databases (See Everson et al. column 3, lines 7-11).

As to claim 25, Everson et al. as modified discloses the method of claim 23 wherein data records of the status file are identified by the unique identification code of the first database (See Everson et al. column 3, lines 7-11, also see Shaheen et al. column 8, lines 38-42).

As to claims 26, and 27, Everson et al. as modified discloses the method of claim 22, 23, or 25 wherein the comparing step further comprises deciding whether to delete a data record from the first database based on the comparing step having determined that a corresponding record of the second database has been deleted since the prior synchronization (See Everson et al. column 3, lines 7-16, also see Shaheen et al. column 7, lines 22-40).

As to claims 28, and 29, Everson et al. as modified discloses wherein the first of the plurality of disparate databases comprises at least one of a first data structure, a first application software, or a first computer program that is different from a second data structure, a second application software, or a second computer program of the second of the plurality of disparate databases (See Everson et al. column 2, lines 44-54, also see Shaheen et al. column 6, lines 6-17).

As to claims 30, and 31, Everson et al. as modified discloses wherein the prior synchronization occurs between the at least one of the first and the second of the plurality of databases (See Shaheen et al. column 7, lines 22-40).

Response to Arguments

4. Applicant's arguments filed on November 2, 2007 have been fully considered but they are not persuasive.

Applicant's argument that "Shaheen (alone or in combination with Everson) does not teach comparing data records from at least one of a first and a second of the plurality of disparate databases with a single status file" is respectfully noted but not deemed to be persuasive.

Applicant's specification (published version) paragraph 0040, indicates that "records" are first compared with the existing ones at desktop or handheld to find changes, then those changes are compared with existing records at the status file, thus in fact no different then the "merged log" usage of Shaheen.

Also to be noted, the claimed limitation found in claim 22, lines 6-7 implies that "status file" is only compared with one of the databases not both. Thus can be broadly read on the individual database's log itself. Not necessarily the one used between the two databases.

In various parts of Applicant's specification (published version), the notion appears to be that another temporary table (whether called workspace in paragraph 0039 or to-do matrix in paragraph 0045) prior to direct interaction with the status file contrary to the alleged argument.

Therefore, the fact, that Shaheen supports that intermediate step to facilitate and improve synchronization among more than two databases, is within the workings of the specification if not an improvement.

Shaheen still uses single file (merged log) to perform the synchronization across the databases hence broadly interpreted on the argued limitation.

Applicant's argument that "Shaheen (alone or in combination with Everson) does not teach updating any file after the synchronization" is respectfully noted but not deemed to be persuasive.

Applicant's specification (published version) paragraphs 0056-0058 states that what is being updated are in fact performing the action associated with the records thereby reducing the size of the status file and indicating it to be a new status file (thus not as implied by applicant's argument the be one and only status file). The records appear to have been purged and cleared for next synchronization.

The server in Shaheen et al. keeps tracks of all changes that occur to the connected databases by keeping track of the merged log (version no. and/or replica no.) inherently if that number is sequential; it implies that updates are recorded to the file after each synchronization.

Applicant's argument that "Shaheen (alone or in combination with Everson) does not teach data records of the first and second databases are without unique identification codes" is respectfully noted but not deemed to be persuasive.

As stated by the Applicant's representative in the remarks page 3 lines 12-14, and page 5, what is being assigned the unique identifier is the whole log file not the individual records themselves; thus no different from the argued limitation. The combined prior art teaches keeping tracks of replica IDs is essential to perform the next synchronization. The central copy is composed of the most recent updates from all the individual databases on the network.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Harderle et al. (U.S. Patent No. 5,561,798) teaches recovery in a database using transaction logs.

Frid-Nielsen et al. (U.S. Patent No. 5,519,606) teaches reconciling multiple databases tables for schedule data.

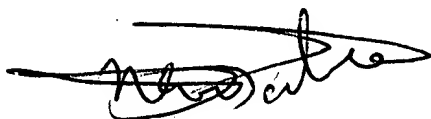
Crozier (U.S. Patent No. 5,392,390) teaches synchronization using field map.

For complete list of cited relevant art, see PTO-form 892.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Neveen Abel-Jalil
Primary Examiner